Question	Answer
6.	Both pairs of opp. sides of *PQRS* are $\cong$, so *PQRS* is a ▱. Since $PZ = QZ$ and $RZ = SZ$, it follows that $PR = QS$ by the Segment Addition Postulate. Thus $\overline{PR} \cong \overline{QS}$. So the diags. of ▱*PQRS* are $\cong$. The frame is a rect. because ▱ with diags. $\cong \rightarrow$ rect.
7.	valid
8.	Not valid; if one diag. of a ▱ bisects a pair of opp. $\angle$s, then the ▱ is a rhombus. To apply this thm., you need to know that *EFGH* is a ▱.
9.	square, rect., rhombus
10.	rhombus
14.	▱
16.	▱, rhombus
17.	B; possible answer: it is given that *ABCD* is a ▱. $\overline{AC}$ and $\overline{BD}$ are its diags. If diags. of a ▱ are $\cong$, you can conclude that the ▱ is a rect. There is not enough information to conclude that *ABCD* is a square.
27.	Rhombus; since diags. bisect each other the quad. is a ▱. Since the diags. are $\perp$., the quad. is a rhombus.
29a.	slope of $\overline{AB}$ = slope of $\overline{CD} = -\frac{1}{3}$; slope of $\overline{AD}$ = slope of $\overline{CB} = -3$

Question	Answer
29b.	Slope of $\overline{AC} = -1$; slope of $\overline{BD} = 1$; the slopes are negative reciprocals of each other, so $\overline{AC} \perp \overline{BD}$.
29c.	*ABCD* is a rhombus, since it is a ▱ and its diags. are $\perp$ (▱ with diags. $\perp \rightarrow$ rhombus).
35.	A ▱ is a rect. if and only if its diags. are $\cong$; a ▱ is a rhombus if and only if its diags. are $\perp$; no; possible answer: They are not converses. The conclusion of the conditional in rhombus $\rightarrow$ each diag. bisects opp. $\angle$s refers to both diags. of a ▱. The hypothesis of the conditional in ▱ with diag. bisecting opp. $\angle$s $\rightarrow$ rhombus refers to only 1 diag. of a ▱.